

PATENT ABSTRACTS OF JAPAN

(11)Publication number : 63-310366

(43)Date of publication of application : 19.12.1988

(51)Int.Cl.

H02K 55/04

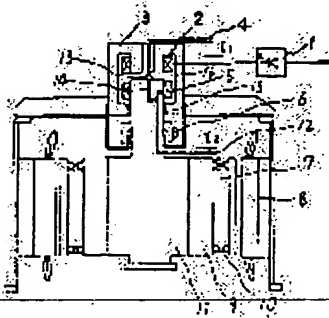
(21)Application number : 62-143157

(71)Applicant : HITACHI LTD

(22)Date of filing : 10.06.1987

(72)Inventor : YASAKA YASUHIRO
FURUKAWA YOSHIO

(54) SYNCHRONOUS MACHINE



(57)Abstract:

PURPOSE: To improve maintainability and controllability, by employing superconducting field winding in a synchronous machine and feeding current through a rotary transformer therefor.

CONSTITUTION: A rotor having a magnetic pole 7 is provided inside of the stator 8 of generator, and a yoke 9 is provided on the outer circumference of a shaft 11. A field winding 10 composed of wound hollow superconductor internally cooled with liquid nitrogen is fixed to the pole 7. The field winding 10 is coupled through a superconducting lead 12 with a superconducting rotor side transformer coil 5, and a core 3 is arranged at the stator side while facing a stator transformer coil 2 so as to form a magnetic path. The coil 2 is coupled with a static exciter 1. Consequently, stator side current is not required to be coupled with rotor side current

through a brush or the like, and current in the field winding 10 can be controlled through coupling of flux of superconducting coil.

LEGAL STATUS

[Date of request for examination]

[Date of sending the examiner's decision of rejection]

[Kind of final disposal of application other than the examiner's decision of rejection or

BEST AVAILABLE COPY

application converted registration]

[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's
decision of rejection]

[Date of requesting appeal against
examiner's decision of rejection]

[Date of extinction of right]

Copyright (C); 1998,2003 Japan Patent Office

BEST AVAILABLE COPY